

REISSUE APPLICATION DECLARATION BY THE INVENTOR

Docket Number (Optional)

D-3953-RE

DEC 29 2000



As a below named inventor, I hereby declare that:

My residence, mailing address and citizenship are stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is described and claimed

in patent number 5,715,270, granted 02/03/1998, and for which a reissue patent is sought on the invention entitled HIGH EFFICIENCY, HIGH POWER DIRECT DIODE

LASER SYSTEMS AND METHODS THEREFOR

the specification of which

☐ is attached hereto.

☒ was filed on 02/03/2000 as reissue application number 09/498,254 and was amended on N/A (If applicable)

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)

☐ by reason of a defective specification or drawing.

☒ by reason of the patentee claiming more or less than he had the right to claim in the patent.

☐ by reason of other errors.

At least one error upon which reissue is based is described below. If the reissue is a broadening reissue, such must be stated with an explanation as to the nature of the broadening:

In U.S. Patent No. 5,715,270, Applicants erroneously, and without deceptive intent, claimed less than they were entitled to claim. For example, claim 1 of the '270 patent recited:

1. A diode laser system, comprising:

N laser head assemblies (LHAs) generating N output beams, wherein each of said N LHAs includes:

M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength;

M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams;

[Page 1 of 2]

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REISSUE APPLICATION DECLARATION BY THE INVENTOR

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a fiber coupling device collecting said M laser beams to produce a respective one of said N output beams;
 N optical fibers receiving respective ones of said N output beams and generating N received output beams; and
 an optical assembly recollimating and focusing said N received output beams on a single spot,
 where N and M are both integers ≥ 2 .

In doing so, Applicants erroneously claimed a diode laser system including at least two laser head assemblies. However, the laser diode system to which the Applicants believe they are entitled is as recited below:

25. A diode laser system, comprising:
 a laser head assembly generating an output beam, wherein the laser head assembly includes:
 M modules which generates M laser beams, and wherein each of said M laser beams has a different wavelength band; and
 M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams into a predetermined optical path to produce said output beam; and
 where M is an integer ≥ 2 .

It will be appreciated from a comparison of claims 1 of the '270 patent and claim 25 of the Reissue application, the recitation of but a single laser head assembly permits additional elements, such as the N optical fibers of claim 1 to be omitted from the claimed diode laser system.

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REISSUE APPLICATION DECLARATION BY THE INVENTOR

Docket Number (Optional)

D-1953-RE

As a below named inventor, I hereby declare that:

My residence, mailing address and citizenship are stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is described and claimed in patent number 5,715,270, granted 02/03/1998, and for which a

reissue patent is sought on the invention entitled **HIGH EFFICIENCY, HIGH POWER DIRECT DIODE**

LASER SYSTEMS AND METHODS THEREFOR

the specification of which

☐ is attached hereto.

☒ was filed on 02/03/2000 as reissue application number 09/498,254
and was amended on N/A
(If applicable)

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☐ by reason of other errors.

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In U.S. Patent No. 5,715,270, Applicants erroneously, and without deceptive intent, claimed less than they were entitled to claim. For example, claim 1 of the '270 patent recited:

1. A diode laser system, comprising:

N laser head assemblies (LHAs) generating N output beams, wherein each of said N LHAs includes:

M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength;

M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams;

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D-3953-RE

Name(s)	Registration Number
Raymond H. J. Powell, Jr.	34,231
Robert A. Westerlund	31,439
Ramon R. Hoch	34,108

☐ Customer Number

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Code Label here

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☐ Additional joint inventors are named on separately numbered sheets attached hereto.

REISSUE APPLICATION DECLARATION BY THE INVENTOR

Docket Number (Optional)

D-3953-RE

a fiber coupling device collecting said M laser beams to produce a respective one of said N output beams;

N optical fibers receiving respective ones of said N output beams and generating N received output beams; and

an optical assembly recollimating and focusing said N received output beams on a single spot,

where N and M are both integers ≥ 2 .

In doing so, Applicants erroneously claimed a diode laser system including at least two laser head assemblies. However, the laser diode system to which the Applicants believe they are entitled is as recited below:

25. A diode laser system, comprising:

a laser head assembly generating an output beam, wherein the laser head assembly includes:

M modules which generates M laser beams, and wherein each of said M laser beams has a different wavelength band; and

M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams into a predetermined optical path to produce said output beam; and

where M is an integer ≥ 2 .

It will be appreciated from a comparison of claims 1 of the '270 patent and claim 25 of the Reissue application, the recitation of but a single laser head assembly permits additional elements, such as the N optical fibers of claim 1 to be omitted from the claimed diode laser system.

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00000000-00000000

REISSUE APPLICATION DECLARATION BY THE ASSIGNEE

Docket Number (optional)

D-3953-RE

In U.S. Patent No. 5,715,270, Applicants erroneously, and without deceptive intent, claimed less than they were entitled to claim. For example, claim 1 of the '270 patent recited:

1. A diode laser system, comprising:
 N laser head assemblies (LHAs) generating N output beams, wherein each of said
 includes:
 M modules generating M laser beams, wherein each of said M laser beams has a different single wavelength;
 M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams;
 a fiber coupling device collecting said M laser beams to produce a respective one of said N output beams;
 N optical fibers receiving respective ones of said N output beams and generating N received output beams; and
 an optical assembly recollimating and focusing said N received output beams on a single spot,
 where N and M are both integers ≥ 2 .

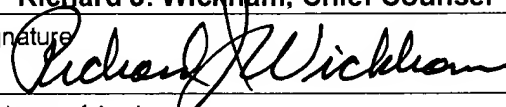
In doing so, Applicants erroneously claimed a diode laser system including at least two laser head assemblies. However, the laser diode system to which the Applicants believe they are entitled is as recited below:

25. A diode laser system, comprising:
 a laser head assembly generating an output beam, wherein the laser head assembly includes:
 M modules which generates M laser beams, and wherein each of said M laser beams has a different wavelength band; and
 M-2 dichroic filters, wherein each of said M-2 dichroic filters transmits a corresponding one of said M laser beams and reflects all other of said M laser beams into a predetermined optical path to produce said output beam; and
 where M is an integer ≥ 2 .

It will be appreciated from a comparison of claims 1 of the '270 patent and claim 25 of the Reissue application, the recitation of but a single laser head assembly permits additional elements, such as the N optical fibers of claim 1 to be omitted from the claimed diode laser system.

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REISSUE APPLICATION DECLARATION BY THE ASSIGNEE		Docket Number (Optional) D-3953-DE	
I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to conduct all business in the United States Patent and Trademark Office connected therewith.			
Name(s)		Registration Number	
Raymond H. J. Powell, Jr.		34,231	
Robert A. Westerlund		31,439	
Ramon R. Hoch		34,108	
Correspondence Address: Direct all communications about the application to:			
<input type="checkbox"/> Customer Number		<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Place Customer Number Bar Code Label Here </div>	
OR			
<input checked="" type="checkbox"/> Firm or Individual Name		WESTERLUND POWELL, P.C.	
Address		122 N. Alfred Street	
Address			
City	Alexandria	State	VA
Zip	22314-3011		
Country	United States		
Telephone	(703) 706-5862	Fax	(703) 706-5860
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.			
Full name of person signing (given name, family name) Richard J. Wickham, Chief Counsel			
Signature 		Date 12/20/2000	
Address of Assignee P O Box 516, St. Louis, MO, 63166-0516			
Patentee Mark S. Zediker		Citizenship United States	
Residence/Mailing Address 315 Merlin Drive, St. Charles MO 63304			
Patentee Robert R. Rice		Citizenship United States	
Residence/Mailing Address 14736 Gre nleaf Vall y Driv , Chesterfield, MO, 63017			
<input checked="" type="checkbox"/> Additional Patentees are named on separately numbered sheets attached hereto.			

PTO/SB/52 (08-00)
Approved for use through 12/30/2000. OMB 0651-0033
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

REISSUE APPLICATION DECLARATION BY THE ASSIGNEE		Docket Number (Optional) D-3953-RE
Patentee John M. Haake	Citizenship United States	
Residence/Mailing Address 5 Gum Tree Place, St. Charles, MO, 63301-1296		
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Patentee	Citizenship	
Residence/Mailing Address		
Patentee	Citizenship	
Residence/Mailing Address		
Patentee	Citizenship	
Residence/Mailing Address		

☐ Additional Patentees are named on separately numbered sheets attached hereto.

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STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: **McDonnell Douglas Corporation**
 Application No./Patent No.: **5,715,270** Filed/Issue Date: **February 3, 1998**
 Entitled: **High Efficiency, High Power Direct Diode Laser Systems and Methods Therefor**
McDonnell Douglas Corporation, a **P O Box 516, St. Louis MO, 63166-0516**
 (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
 2. ☐ an assignee of less than the entire right, title and interest.
 The extent (by, percentage) of its ownership interest is _____ %
 in the patent application/patent identified above by virtue of either:



- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel **8368**, Frame **0083**, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: _____ To: _____
 The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
 2. From: _____ To: _____
 The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
 3. From: _____ To: _____
 The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

12/20/2000
 Date

Richard J. Wickham

Typed or printed name

Richard J. Wickham
 Signature

Chief Counsel

Title

002020145286460